REMARKS/ARGUMENTS

Reexamination and reconsideration of this application as amended is requested. By this amendment, Claims 1-5, 8-9, 20-22, and 24 have been amended. Claim 25 has been canceled without prejudice. After this amendment, Claims 1-24, and 26-27 remain pending in this application.

Objection to the Drawings

(1) the Examiner objected to the drawings under 37 CFR 1.83(a) as not showing every feature of the invention specified in the claims. Specifically, Examiner objected to the terms "at least one visual representation" and "pre-collected database repository" as not being supported by the drawings.

Applicants have amended the claims to more clearly and specifically identify the above terms. No new matter was added. These clarifying amendments to the claims in combination with the following remarks should make clear that all claimed features are already shown in the drawings as originally filed.

Objection to "at least one visual representation"

With respect to the term "at least one visual representation", Applicants have amended independent Claims 1, 9, 20, and 22, to more clearly recite the claimed subject matter. No new matter was added. Specifically, Applicants have added the claim language "on a display" to clearly and affirmatively recite that the at least one visual representation of the search object and the at least one visual representation of the domain object are both found on a display such as on a display screen. Please also note specific discussions in the specification that make this understanding very clear, and in particular note that Figure 5, and the associated discussions in the specification, clearly teach and show seven such examples of visual representations.

For example, see the specification, on page 5, lines 3-30, being provided below for quick reference.

> The present invention, according to a preferred embodiment, overcomes problems with the prior art by allowing the user to formulate a search engine query by using graphical representations of objects. The user begins the search by selecting the graphical representation of a search object which visually represents the logical object of the search query. For example, assuming it was tennis, the user would click upon a tennis racket. The next step could involve the user dragging the search object selected and dropping it onto a graphical representation of a domain object. Domain objects are graphical representations of a target domain, which provides context to the search. For example, dropping the search object (tennis racket) onto a domain object which visually depicts two students in a graduation ceremony would indicate that the user is looking for tennis lessons. The program will then initialize a search for tennis lessons which could occur in locations such as a database system, or a remote Internet site. As a result of this search, the program will produce a result set object, which is a visual representation of the matches found from the search query. In this example, a result object depicting a school would be returned to represent the sites that give tennis lessons.
>
> A significant aspect of this invention is its visual representation of search objects. In general, visual interfaces are more intuitive than text based interfaces. Also "dropping" a search object onto a target domain provides a much more powerful visual. Visuals, for the most part, are **language independent. Without words**, there is little need for a translation, for example, national language support. For example, a tennis racket looks the same in the United States as it does in Germany. Visual interfaces can also support a larger population of users including those people with language difficulties, spelling challenges, and illiterates. It also provides a consistent user interface across search engines. **(Emphasis added)**.

Also, see the specification discussion on page 7, lines 17-27, that is provided below for quick reference.

> FIG. 3 illustrates the exemplary visual search query application 112 according to a preferred embodiment of the present invention. The graphical user interface/event manager 300 is structured to receive all GUI/event manager 300 events, such as mouse movements, keyboard

> inputs, drag and drop actions, user selections, and updates to the display 212. The user can access objects via the GUI/event manager 300 and manipulate them in various ways. The user can group objects in any of a number of ways, including linking or connecting them together, dragging one on top of another, and enclosing them within a bound area shown on the display 212. The user can also associate properties to an object, for example, the object context and whether an object is negated, for example "not tennis".
> (Emphasis added).

Also, see the specification discussion on page 10, line 7, to page 11, line 10, that is provided below for quick reference.

> FIG. 4 is an operational flow diagram illustrating an exemplary operational sequence for the system of FIG. 1. The system enters the sequence at step 400, wherein a user is communicating via a user interface with the computer system 102. A graphical display, such as the display 212, displays a group of search objects to the user. Search objects are the visual representations of the items being sought. The search objects may be stored persistently on a disk storage device, such as part of data memory 206, and the search objects are preferably organized hierarchically into templates. For example, the map template may contain templates for Europe, North America, and South America. The Europe template could further contain the search objects for Italy, France, and Germany.
>
> The user operates the user interface, such as the mouse 210 and/or keyboard 208, to select the search object, at step 402, which visually represents the logical object of the desired search query, by using means such as clicking a mouse button when the cursor is located onto the at least one search object, or selecting the at least one search object with a keyboard movement.
>
> The user then selects a domain object 403. Domain objects are the visual representations of the target domain. A domain object provides context to a search. Domain objects may also be stored persistently on a disk storage device, such as in part of data memory 206, and organized hierarchically into templates. Each domain object, in this example, is matched to its verb. For example, a charge card maps to buy. The domain object may be dragged onto a palette, which may be represented by an area defined by graphical boundaries on the user display 212.

> The user then drops the search object selected onto the domain object, at step 404. This may be preferably accomplished by dragging the search object across the user interface, e.g. the display 212, once again using a mouse 210 or keyboard 208, and placing the search object on top of the domain object.
>
> Once this step is completed, the application 112 formulates a query, at step 406.
> (Emphasis added).

Lastly, please see the specification discussion with reference to FIG. 5, such as starting on page 12, line 8, where a brief example of that discussion is provided below for quick reference.

> Referring to FIG. 5, according to one exemplary scenario, a user employs the visual search query application 112 in order to search for a tennis partner. This is illustrated by traversing displayed objects along arrows leading to the tennis player object.
>
> Because the subject of the users' query involves tennis, the user would select a search object which visually depicts tennis. In this case, such a search object may be preferably represented in the graphical depiction of a tennis racquet 502.
>
> After selecting the search object, the user would need to select a domain object. The domain object would need to add context to the users' search, and in this case would have to represent partner. Here, a selection could be the graphical depiction of multiple persons 504. Therefore, by dragging the graphical depiction of the tennis racquet 502 onto the graphical depiction of the multiple persons 504, the user would have defined a search request for tennis partner.
>
> That search request would then be preferably translated into a text search query 506 and then sent to the preferable search site.
> (Emphasis added).

Note also, in particular, that the term "at least one visual representation" has been amended to more clearly and distinctly recite "at least one non-textual language independent visual representation." Support for this language may be found in the specification as originally file, for example, see the discussion on page 5, lines 21-30,

which is also provided above (see page 8 of this Response) for quick reference. This discussion clearly teaches a visual representation of a search object as being "language independent" and "without words" (i.e. non-textual). This paragraph also gives a specific example of one visual representation of a search object as being a picture of a tennis racket. This example is further illustrated in Figure 5. Also, Applicants have further amended Claim 9 to recite "on a display" and providing "to a user" to more clearly recite for Claim 9 and all dependent Claims depending therefrom that, as explained above, the act of dropping a search object includes those actions commonly performed by a user on a computer display. The act of "dropping" an item onto another item on a display is well-known in the computer user-interface industry and should be clear.

Objection to "pre-collected database repository"

With respect to the term "pre-collected database repository", Applicants have amended Claims 8 and 24, and canceled Claim 25 without prejudice, to more clearly recite the claimed subject matter. Specifically, Applicants have revised the term "pre-collected database repository" to "database search system" in Claim 8. Claim 24 was revised to also recite "database search system." This revised term clearly references database search systems that may be located, for example, locally, as indicated in Figure 1 by the database system 110, or they may be located over a network on a remote site 108, such as through a search server system 106. This term is clearly shown in the drawings. No new matter was added.

Applicants believe that the amended claims now more clearly identify features represented in the drawings, and therefore it should not be necessary to amend the actual drawings. In view of the amendments and the discussion above, Applicants believe that the objection to the drawings has been overcome, and Applicants respectfully request that Examiner withdraw the objection to the drawings.

Claims Rejection under 35 U.S.C. § 112, second paragraph

(2) The Examiner rejected Claims 1-27 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, regarding Claims 1 and 20, the Examiner expressed that the limitation: **"dropping** the at least one **visual representation of the search object** onto at least **one visual representation corresponding to a domain object;** and in response to the dropping step, providing a query" [see claim 1], was vague and unclear and not represented in the drawings or disclosure. Also, the Examiner felt that the connection between the term "selecting" and "dropping" was unclear. Claims 2-8 and 21 were rejected based on dependency.

Applicants have amended Claims 1, 9, 20, and 22 to more clearly and distinctly recite the claimed subject matter. Specifically, as has been discussed above with reference to Examiner's objection to the drawings, Applicants have added the language "on a display". This language clearly indicates that the action is to be performed by a user on a display of a computer. The term "dropping" is commonly used and well-known in the computer industry to refer to selecting, such as by using a mouse, to place a visual representation of an object on top of a visual representation of another object displayed on a computer display. The addition of this clarification should eliminate any vagueness or uncertainty related to this operation. These changes will equally apply to all dependent claims.

Regarding Claims 8 and 25, the Examiner remarked that the term: **"pre-collected database repository"** was vague and unclear as this term did not appear to be used in the disclosure or the drawings. Applicants have amended Claim 8, and canceled Claim 25 without prejudice, to more clearly and distinctly recite the presently claimed invention.

Specifically, the Applicants have replaced the term "pre-collected database repository" with the term "database search system". Also, the Applicants have amended Claim 24 to recite "database search system." The claim language "database search system" more clearly recites that the query is sent to a database search system.

Support for the amended claim language may be found in the specification, for example, on page 5, lines 14-18; page 6, lines 1-14; page 7, lines 9-15; and page 11, lines 18-20. No new matter was added.

The Examiner also indicated that in Claims 9 and 22, the following claim language was vague: "at least one visual representation of a search object being dropped onto at least one selected visual representation of a domain object to provide a query". Claims 10-19 and 23-27 were rejected based on dependency.

Applicants have amended the term "visual representation", in Claims 9 and 22, to more clearly recite as a "non-textual language independent visual representation". Additionally, the term "on a display" was added to the Claims 9 and 22 to more clearly recite that the visual representations are found on a display.

Support for the revised claim language may be found in the specification, for example, on page 5, lines 3-30, and on page 7, lines 7-27, page 10, line 7, to page 11, line 10, and on page 12, lines 8-24. No new matter was added.

This discussion clearly identifies a visual representation of a search object as being "language independent" and "without words" (i.e. non-textual). This discussion gives specific examples of a visual representation of a search object such as being a picture of a tennis racket. This is further illustrated in Figure 5. Also, amended Claims 9 and 22 recite "on a display" to more clearly indicate, as has been explained above, that the act of dropping a search object includes actions commonly performed by a user on a computer display. Again, the act of "dropping" an object onto another object on a

display is very well-known in the computer industry and the relevant claim language should be clear. As claims 10-19, 23-24, and 26-27 depend from Claims 9 and 22, these revisions to the claim language of Claims 9 and 22 will likewise apply to the dependent claims depending therefrom, respectively.

In view of the amendments to the claims and the remarks above, Applicants believe that the rejection of the Claims 1-27 under 35 U.S.C. § 112, second paragraph, as discussed above, has been overcome. Applicants request that the Examiner withdraw the rejection of the Claims 1-27.

(3) The Examiner additionally rejected Claims 9-19 under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. The omitted structural cooperative relationships were: the connection between the query formulator and providing a query to the system. Also the Examiner felt that the connection between the query request in response to "the provided query" was unclear. Claims 10-19 were rejected based on dependency.

As has been discussed above, Claim 9 has been amended to more clearly recite that a query is formulated in response to the act of a user dropping a visual representation of a search object onto a visual representation of a domain object on a display. No new matter was added. This formulated query is then communicated, as a query request, by the query initiator to the lookup system. All elements of Claim 9 should be read as a whole to properly understand the cooperative relationship between the query formulator, the query initiator, and the lookup system.

Applicants believe that in view of the amended claim language and the discussion above it should be clear that Claim 9 properly connects the structural elements as necessary under 35 U.S.C. § 112. Likewise, dependent claims 10-19, depending from Claim 9, recite the amended claim language. Accordingly, in view of the amendment Claim 9 and the

remarks above, Applicants believe that the rejection of the Claims 9-19 under 35 U.S.C. § 112, second paragraph, as discussed above, has been overcome. Applicants request that the Examiner withdraw the rejection of the Claims 9-19.

Claim Rejections - 35 USC § 102

(4) The Examiner rejected Claims 1-8 and 20-27 under 35 U.S.C. 102(b) as being anticipated by Bergman et al. (U.S. Patent 5,909,678). Specifically, the Examiner characterized Bergman as teaching a computer system, method and program product for constructing queries by selecting iconic representations of subcomponent statements and dragging and dropping the icon onto a template.

Applicants have amended Claims 1-5 and 20-22, and have canceled Claim 25 without prejudice, to more clearly and distinctly recite the present invention as non-textual, language independent visual representations of both the search object and the domain object when formulating search queries. No new matter was added. On the other hand, Bergman teaches the use of text based icons and templates when formulating searches.

The new and novel features of the presently claimed invention provide non-textual language independent means for formulating searches, such as discussed in the specification on page 5, lines 3-30, which adds significant commercial value that is not taught, anticipated, or suggest, by the Bergman patent teachings. The use of a language independent basis of formulating a query will provide world-wide access to databases not traditionally accessible because of language limitations. This feature of the presently claimed invention is clearly not taught, anticipated, or suggested by the Bergman reference, as discussed above. Since dependent claims recite all of the limitations of the claims from which they depend, Applicants believe that Claims 1-8, 20-24, and 26-27, depending from amended independent Claims 1, 20, and 22, respectively, also are not taught, anticipated, or suggested by Bergman's teachings. Accordingly, in view of the

amendments and remarks above, Applicants believe that the rejection of Claims 1-8 and 20-27 under 35 U.S.C. 102(b) has been overcome, and that Examiner should withdraw the rejection of these claims. Additionally, these claims are all in condition for allowance, and Applicants request that the Examiner allow these claims to issue as a patent.

Claim Rejections - 35 USC § 103

(5) The Examiner rejected Claims 9-19 under 35 U.S.C. 103(a) as being unpatentable over Bergman et al. (U.S. Patent 5,909,678).

Applicants have amended independent Claim 9 to correct minor informality to comply with Examiner's rejection under 35 U.S.C.§ 112, as well as to add the language of "non-textual language independent" visual representation of search objects and of domain objects. Further, the clarification "on a display" was added to Claim 9 to more clearly recite that the visual representations are found on a display. No new matter was added by the amendment.

As has been previously discussed, the presently claimed non-textual language independent visual representations of the search object and of the domain object on a display when formulating search queries provides significant features not taught, anticipated, or suggested, by Bergman. Recall that Bergman, on the other hand, teaches the use of text based icons and templates when formulating searches.

The new and novel features of the presently claimed invention, as recited for independent Claim 9, and for all dependent claims depending therefrom, respectively, provide non-textual language independent means for formulating searches, such as discussed in the specification on page 5, lines 3-30, which provides significant commercial value that is not taught, anticipated, or suggest, by the Bergman patent teachings. For example, the use of a language independent formulating of a search query on a display

will provide world-wide access to database search systems that are not traditionally accessible because of language and text limitations. The non-textual language independent visual objects on a display are more intuitive for formulating search queries than text based search query formation. They allow users to benefit from the database search systems across different languages and even if the users are illiterate. This feature of the presently claimed invention is clearly not taught, anticipated, or suggested by the Bergman reference, as discussed above.

Since dependent claims recite all of the limitations of the claims from which they depend, Applicants believe that dependent Claims 10-19, depending from amended independent Claim 9, respectively, also are not taught, anticipated, or suggested by Bergman's teachings. Accordingly, in view of the amendments and remarks above, Applicants believe that the rejection of Claims 9-19 under 35 U.S.C. 103 (a) has been overcome, and that Examiner should withdraw the rejection of these claims. Additionally, these claims are all in condition for allowance, and Applicants request that the Examiner allow these claims to issue as a patent.

Conclusion

The foregoing is submitted as full and complete response to the Official Action mailed September 9, 2003, and it is submitted that Claims 1-24, and 26-27, are in condition for allowance. Reconsideration of the rejection is requested. Allowance of Claims 1-24, and 26-27, is earnestly solicited.

No amendment made was related to the statutory requirements of patentablity unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

Applicants acknowledge the continuing duty of candor and good faith to disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §§ 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment are limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and the attorneys.

The present application, after entry of this amendment, comprises twenty-six (26) claims, including four (4) independent claims. Applicants have previously paid for twenty-seven (27) claims including four (4) independent claims. Applicants, therefore, believe that an additional fee for claims is currently not due.

However, a petition for extension of time to file this Response has been attached. The Commissioner is authorized to charge the extension fee for response of $950, or if this fee amount is insufficient, then the Commissioner is authorized to charge the appropriate fee amount to prevent this application from becoming abandoned to Deposit Account 50-1556.

If the Examiner believes that there are any informalities that can be corrected by Examiner's amendment, or that in any way it would help expedite the prosecution of the patent application, a telephone call to the undersigned at (561) 989-9811 is respectfully solicited.

The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account 50-1556.

In view of the preceding discussion, it is submitted that the claims are in condition for allowance. Reconsideration and re-examination is requested.

Respectfully submitted,

Date: 3/9/04

By: Jose Gutman
Jose Gutman
Reg. No. 35,171

Please send all correspondence concerning this patent application to:

Jose Gutman, Esq.
FLEIT, KAIN, GIBBONS, GUTMAN
BONGINI & BIANCO P.L.
551 N.W. 77th Street, Suite 111
Boca Raton, FL 33487
Tel (561) 989-9811
Fax (561) 989-9812